



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/509,518	11/26/2004	Isamu Takahara	121230	5684
25944 7590 02/09/2007 OLIFF & BERRIDGE, PLC P.O. BOX 19928 ALEXANDRIA, VA 22320			EXAMINER JOHNSON, STEPHEN	
			ART UNIT 3641	PAPER NUMBER

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	02/09/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No. 10/509,518	Applicant(s) TAKAHARA ET AL.	
	Examiner Stephen M. Johnson	Art Unit 3641	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 December 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 34-46 is/are pending in the application.
- 4a) Of the above claim(s) 40-42 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 34-39 and 43-46 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claim(s) 34-46 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Art Unit: 3641

1. Applicant's election with traverse of the species C invention (illustrated in fig. 4) in the reply filed on 11/28/2006 is acknowledged.

The traversal is on the ground(s) that claim 34 is generic to all species and that the independent generic claim has avoided the prior art. This is not found persuasive because claim 34 is neither generic to all claims (note that not all embodiments contain a tapered portion or a tapered portion that decreases in size as claimed in claim 34) nor does claim 34 avoid the prior art (see paragraphs 2-7 below).

Further, with regard to claims 40-42, these species lack unity of invention because no single general inventive concept or special technical feature that is common to all species is present to justify a unity of invention.

With regard to MPEP 1893.03(d), note that this section is directed to groupings of inventions (e.g. apparatus and method of making) and not to species (also see 37 CFR 1.499).

The requirement is still deemed proper and is therefore made FINAL.

Claims 40-42 are withdrawn from consideration as being directed to non-elected species. Claims 34-39 and 43-47 read on the elected species and an action on these claims follows.

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 34, 36-38, and 43-46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bailey (183) in view of O'Loughlin et al. (560).

Bailey (183) discloses an initiator, inflator, and associated method comprising:

Art Unit: 3641

a) a conductive header;	150
b) a first lead pin;	170
c) a second lead pin;	190
d) a hole;	contains 200
e) an insulator;	200
f) a bridge wire;	270
g) a sealed cup-shaped casing;	290, 292
h) an explosive associated with the bridge wire;	280
i) a non-tapered border between the insulating member and the conductive header;	border between 150 and 200 (see fig. 2)
j) a casing;	44
l) a gas storage portion containing a gas generating agent;	inside 44
m) an attachment portion;	46
n) a gas sealing lid; and	90
o) an airbag inflator.	see abstract

Bailey (183) applies as recited above. However, undisclosed is a tapered portion between the insulating member and the conductive header or an insulator that is composed of heat and pressure-resistant glass. O'Loughlin et al. (560) teaches a tapered portion between the insulating member and the conductive header (col. 5, lines 8-17 and fig. 3). O'Loughlin et al. (560) also teaches an insulator that is composed of heat and pressure-resistant glass (col. 5, lines 26-36). In the first instance, applicant is substituting one arrangement border between the insulating member and the conductive header for another in an analogous art setting for the advantages

Art Unit: 3641

taught by the secondary reference (see col. 5, line 65 to col. 6, line 8 of O'Loughlin et al.). In the second instance, applicant is substituting one type of insulating material for another in an analogous art setting as explicitly encouraged by the secondary reference (see col. 5, lines 26-36 of O'Loughlin et al.). It would have been obvious to a person of ordinary skill in this art at the time of the invention to apply the teachings of O'Loughlin et al. to the Bailey initiator and have an initiator with a different conductor to insulator border and a different type of insulator material.

4. Claims 39 and 47 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bailey (183) in view of O'Loughlin et al. (560) as applied to claims 34, 36-38, and 43-46 above, and further in view of Brisighella (562).

Bailey (183) and O'Loughlin et al. (560) apply as previously recited. However, undisclosed is a seatbelt pre-tensioner associated with the initiator. Brisighella (562) teaches a seatbelt pre-tensioner associated with the initiator (col. 1, lines 50-56). Applicant is substituting one usage for an initiator for another in an analogous art setting as explicitly encouraged by the secondary reference (see col. 1, lines 50-56 of Brisighella). It would have been obvious to a person of ordinary skill in this art at the time of the invention to apply the teachings of Brisighella to the Bailey and O'Loughlin et al. initiator and have an initiator used in a different context.

5. Claim 35 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bailey (183) in view of O'Loughlin et al. (560) as applied to claims 34, 36-38, and 43-46 above, and further in view of Stonestrom (520).

Bailey (183) and O'Loughlin et al. (560) apply as previously recited. However,

Art Unit: 3641

undisclosed is tapering over the entire border between the insulator and conductive header.

Stonesrom (520) teaches a tapering over the entire border between the insulator and conductive header (see figs. 3, 5, and 6). Applicant is substituting one tapered arrangement for another in an analogous art setting with no unexpected results in the final product. It would have been obvious to a person of ordinary skill in this art at the time of the invention to apply the teachings of Stonestrom to the Bailey and O'Loughlin et al. initiator and have an initiator where the tapering between conductive header and insulator is over the entire border.

6. Claims 34, 36-38, 43, and 45-46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Little II (906) in view of O'Loughlin et al. (560).

Little II (906) discloses an initiator, inflator, and associated method comprising:

- | | |
|-------------------------------------------------------------------------------------|------------------------------------------|
| a) a conductive header; | 16 |
| b) a first lead pin; | 24 |
| c) integral connection; | 32 |
| d) a second lead pin; | 22 |
| e) a hole; | contains 30 |
| f) an glass insulator; | 30 |
| g) a bridge wire; | 28 |
| h) a sealed cup-shaped casing; | 12, 14 |
| i) an explosive associated with the bridge wire; | 18 |
| j) a non-tapered border between the insulating member
and the conductive header; | border between 16 and 30
(see fig. 1) |
| k) a casing; | 50,58 |

Art Unit: 3641

l) a gas storage portion containing a gas generating agent; inside 50, 58

m) an attachment portion; and 40

n) an airbag inflator. see abstract

Little II (906) applies as recited above. However, undisclosed is a tapered portion between the insulating member and the conductive header. O'Loughlin et al. (560) teaches a tapered portion between the insulating member and the conductive header (col. 5, lines 8-17 and fig. 3). Applicant is substituting one arrangement border between the insulating member and the conductive header for another in an analogous art setting for the advantages taught by the secondary reference (see col. 5, line 65 to col. 6, line 8 of O'Loughlin et al.). It would have been obvious to a person of ordinary skill in this art at the time of the invention to apply the teachings of O'Loughlin et al. to the Little II initiator and have an initiator with a different conductor to insulator border.

7. Claims 39 and 47 are rejected under 35 U.S.C. 103(a) as being unpatentable over Little II (906) in view of O'Loughlin et al. (560) as applied to claims 34, 36-38, and 43, and 45-46 above, and further in view of Brisighella (562).

Little II (906) and O'Loughlin et al. (560) apply as previously recited. However, undisclosed is a seatbelt pre-tensioner associated with the initiator. Brisighella (562) teaches a seatbelt pre-tensioner associated with the initiator (col. 1, lines 50-56). Applicant is substituting one usage for an initiator for another in an analogous art setting as explicitly encouraged by the secondary reference (see col. 1, lines 50-56 of Brisighella). It would have been obvious to a person of ordinary skill in this art at the time of the invention to apply the teachings of

Art Unit: 3641

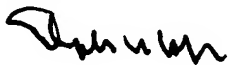
Brisighella to the Little II and O'Loughlin et al. initiator and have an initiator used in a different context.

8. Applicant's arguments with respect to claims 34-39 and 43-46 have been considered but are moot in view of the new ground(s) of rejection (see paragraphs 2-7 above).

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stephen M. Johnson whose telephone number is 571-272-6877 and whose e-mail address is (Stephen.Johnson@uspto.gov). The examiner can normally be reached on Tuesday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Carone can be reached on 571-272-6873. The Central FAX phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 800-786-9199.



STEPHEN M. JOHNSON
PRIMARY EXAMINER

Stephen M. Johnson
Primary Examiner
Art Unit 3641

SMJ
February 7, 2007